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A striking variation in *Silene noctiflora*

E. P. HUMBERT

(WITH TWO TEXT FIGURES)

From some *Silene noctiflora* seeds planted in the greenhouse December 1, 1917, one very interesting plant has developed. The normal *Silene noctiflora* seedling has two seed-leaves and succeeding leaves are in whorls of two, or opposite, each pair being placed over the intervals between the preceding pair. The pairs cross at right angles or decussate. This is illustrated in FIG. 1, a reproduction of a normal seedling. The plant which is the

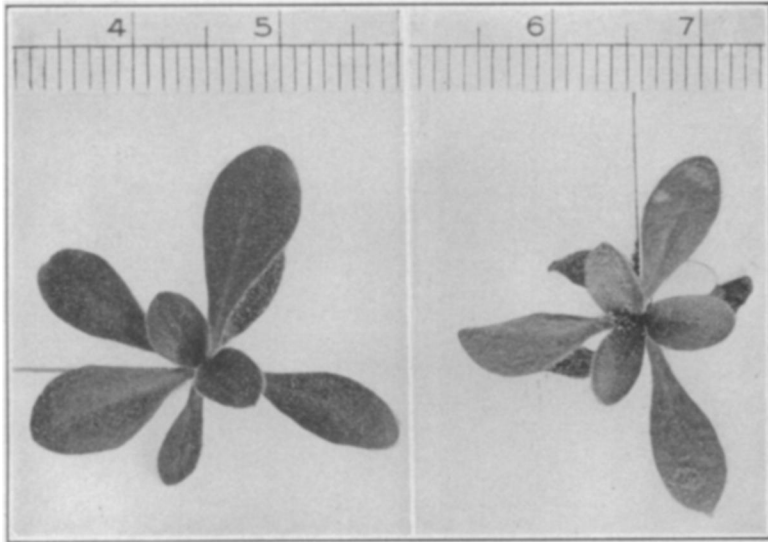


FIG. 1.

FIG. 2.

FIG. 1. Normal *Silene noctiflora* seedling with two seed-leaves and two leaves in each succeeding whorl, $\times 2$.

FIG. 2. *Silene noctiflora* seedling with three seed-leaves and three leaves in each of the two succeeding whorls, $\times 2$.

occasion of this sketch produced three seed-leaves and the succeeding leaves were arranged in whorls of three, each leaf of the

new whorl being placed above an interval between leaves of the preceding whorl. FIG. 2 is reproduced from a photograph of this plant.

It is no uncommon thing to find *Silene noctiflora* seedlings with divided seed-leaves. All gradations have been noted from the extreme where both seed-leaves are completely divided, giving the appearance of four seed-leaves, to a partial division of one seed-leaf. When one seed-leaf is divided the seedling has the appearance of a plant with three seed-leaves. In all such monstrosities, however, the leaves which follow the seed-leaves are opposite and the plant is thereafter quite normal. The plant here pictured in FIG. 2 is the first one observed to show a completely altered phyllotaxy.

Silene noctiflora seeds were secured from the Department of Plant Breeding, Cornell University, in the fall of 1916, and an attempt was made to grow seedlings in the garden in 1917. Only one (very much stunted) plant produced seed, due to unfavorable environment. The seed from this plant produced the seedlings pictured.

AGRICULTURAL EXPERIMENT STATION,
COLLEGE STATION, TEXAS